

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) An apparatus for displaying image data direction of a terminal, comprising:
  - a codec ~~for performing~~ configured to perform a converting operation between analogue voice data and digital voice data;
  - a camera module ~~for performing~~ configured to perform a converting operation between analogue image data and digital image data;
  - a direction sensor ~~for detecting~~ configured to detect a compass orientation direction of a photographing object;
  - an A/D converter ~~for converting~~ configured to convert analogue direction data detected by the direction sensor into digital direction data;
  - a voice/image communication apparatus ~~for multiplexing~~ configured to multiplex or demultiplex ~~demultiplex~~ the converted voice, image and direction data;
  - a ~~LCD display~~ module for displaying ~~configured to display~~ image and direction data multiplexed from the voice/image communication apparatus, wherein the direction data is

displayed within the image which is captured by the apparatus and displayed by the LCD display module; and

a control unit ~~for controlling~~ configured to control each unit ~~generally~~.

2. (Currently Amended) The apparatus of claim 1, wherein the direction sensor detects a compass orientation direction of a photographing object, which is substantially identical ~~with to~~ a photographing direction of a camera.

3. (Currently Amended) The apparatus of claim 1, wherein the voice/image communication apparatus comprises:

a multiplexing processing unit configured to multiplex or demultiplex voice, image, and direction data to display multiplexed image and direction data on a display;

a voice encoding processing unit configured to encode ~~for encoding the~~ voice data input from the codec or ~~converting the~~ convert voice data transmitted from ~~a the~~ the multiplexing processing unit into data for transmitting to a speaker;

an image encoding processing unit configured to encode ~~for encoding the~~ image data input from ~~a the~~ the camera module or ~~converting the~~ convert image data transmitted from ~~a the~~ the multiplexing processing unit into data for displaying on ~~an LCD~~ the display; and

a direction displaying processing unit ~~configured to encode for encoding the~~  
direction data input from the A/D converter or ~~converting the~~ convert direction data  
transmitted from ~~a~~ the multiplexing processing unit into data for displaying on ~~an LCD; and~~  
~~a multiplexing processing unit for multiplexing the voice, image and direction data~~  
~~or demultiplexing to display a multiplexed image and direction data on an LCD~~ the display.

4. (Currently Amended) The apparatus of claim 3, wherein the direction displaying processing unit calculates a compass orientation direction and encodes the calculated compass orientation direction by formatting the calculated compass orientation direction into a binary value.

5. (Currently Amended) The apparatus of claim 3, wherein the direction displaying processing unit displays the direction data in a direction displaying area at one side of a screen of ~~the LCD~~ display.

6. (Currently Amended) The apparatus of claim 3, wherein the direction displaying processing unit displays the direction data as a direction on ~~the~~ a screen of the ~~LCD~~ display.

7. (Currently Amended) The apparatus of claim 3, wherein the direction displaying processing unit displays the direction data as a direction on ~~the~~ a screen of the ~~LCD display~~ in the form of a compass.

8. (Previously Presented) The apparatus of claim 3, wherein the multiplexing processing unit multiplexes encoded packet data by receiving the data from the voice encoding processing unit, image encoding processing unit, and direction displaying processing unit, and inputs the data to an image frame by forming a flag and header to distinguish the image frame.

9. (Currently Amended) The apparatus of claim 3, wherein the multiplexing processing unit is further ~~set~~ configured to form a null data ~~set~~ if no data is transmitted ~~to a terminal thereto~~.

10. (Currently Amended) A method for displaying image data direction of a terminal, comprising:

demultiplexing an image frame received from a multiplexing processing unit and separating the image frame into image, voice, and compass orientation direction data; and

displaying the separated image and compass orientation direction data on a screen of ~~an LCD~~ a display, wherein the compass orientation data is displayed within the image on the screen of the ~~LCD~~ display.

11. (Currently Amended) The method of claim 10, wherein the multiplexing processing unit checks the received image frame and forms a null data set if the image frame is not separable.

12. (Currently Amended) The method of claim 10, wherein ~~the displaying the~~ separated image and compass orientation direction data further comprises:

detecting the demultiplexed image data and direction data and transmitting said detected data to an image encoding processing unit and a direction displaying processing unit, respectively;

checking the transmitted demultiplexed data for a direction displaying mode from the direction displaying processing unit;

determining a position and a method for displaying the image and compass orientation direction data on the screen of the ~~LCD display~~ from the direction displaying processing unit if the direction displaying mode is set; and

displaying the image and compass orientation direction data on the screen of the LCD display in the determined position and determined method.

13. (Currently Amended) The method of claim 12, wherein ~~the LCD displays only~~ image data read from a voice/image communication apparatus is displayed on the screen of the display if the direction displaying mode is not set in the direction displaying processing unit.

14. (Currently Amended) The method of claim 12, wherein the direction displaying processing unit displays the compass orientation data in a direction displaying area at one side of the screen of the LCD display.

15. (Currently Amended) The method of claim 12, wherein the direction displaying processing unit displays the compass orientation data as a direction on the screen of the LCD display.

16. (Currently Amended) The method of claim 12, wherein the direction displaying processing unit displays the compass orientation data as a direction on the screen of the LCD display in the form of a displaying compass.

17. (Previously Presented) The method of claim 12, wherein the displaying comprises a transmitted stop image.

18. (Currently Amended) The method of claim 12, ~~wherein the LCD further displays~~ further comprising displaying time and date information with the image and compass orientation direction data on the screen of the display.

19. (Currently Amended) A method for displaying image and direction data ~~direction~~ ~~of a terminal~~, comprising:

formatting a ~~detected~~ analogue compass orientation direction data into a binary value ~~of a certain bit~~ and encoding said binary value;

multiplexing the encoded compass orientation direction data binary value together with image and voice data forming an image frame; and

transmitting the ~~formed~~ image frame to a base station, wherein the ~~formed~~ image frame includes the compass orientation direction data as part of the image to be displayed.

20. (Currently Amended) The method of claim 19, wherein ~~the~~ multiplexing the encoded compass orientation direction data, image data, and voice data comprises:

receiving packetized voice data through a voice encoding processing unit;

receiving packetized image data through an image encoding processing unit;  
multiplexing the received packetized voice and image data and the encoded  
compass orientation direction data as an image frame; and  
generating and inserting flag and header information ~~in~~into the image frame.

21. (Currently Amended) The method of claim 19, wherein a compass orientation direction of a photographing object is calculated by formatting ~~the~~ calculated compass orientation direction data, and wherein the data is encoded into an image packet while formatting the compass orientation direction data.

22. (Currently Amended) The method of claim 21, wherein the direction data is formatted to display one ~~bite~~byte of information.

23. (Currently Amended) The method of claim 19, wherein ~~the multiplexing step forms a~~ null data set is formed in the multiplexing step if data is not transmitted to the base station.

24. (New) The apparatus of claim 1, wherein the display is a liquid crystal display.



Serial No. 09/996,713

Docket No. P-0289

Amdt. dated May 26, 2005

Reply to Office Action of February 28, 2005

25. The method of claim 10, wherein the display is a liquid crystal display.